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Edited the Curren applicant was Added the manda	gins in cases whe for in the Current t Application Data the prior applicat tory heading and er of Sequences*	Application Data s section with the action data; or oth	ctual current numer	Verified by:	3.
Edited a format er Edited the Curren applicant was Added the manda Edited the "Number	t Application Data the prior applicat tory heading and	Application Data s section with the action data; or oth	ctual current numer	ปly: 	•
Edited the Curren applicant was Added the manda Edited the "Number	t Application Data the prior applicat tory heading and er of Sequences*	section with the action data; or oth	ctual current numer	mber. The number inpu	utted by the
applicant was Added the manda Edited the "Number	the prior applicate tory heading and ear of Sequences.	ion data; or oth	ner	<u> </u>	utted by the
Edited the "Number	er of Sequences"	-		on Data".	
J	·	field. The applicar			
Changed the spell	ing of a mandator		nt spelled out a n	number instead of using	g an integer.
		ry field (the heading	gs or subheading	gs), specifically:	
Corrected the SEC	Q ID NO when ob	viously incorrect. 1	The sequence nu	umbers that were edited	d were:
Inserted or correct	ed a nucleic num	ber at the end of a	nucleic line. SE	EQ ID NO's edited:	
				e line as each subheadi its appropriate place.	ng. If the
Inserted colons af	ter headings/subh	neadings. Heading	s edited include	d: ,	
Deleted extra, inva	alid, headings use	ed by an applicant,	specifically:		
		at the beginning/en;		secretary initials/filenam	
Inserted mandato	ry headings, spec	cifiçally:	· 		·
Corrected an obv	ious error in the re	esponse, specifical	lly: .		
Edited identifiers	where upper case	is used but lower	case is required	, or vice versa.	
Corrected an erro	r in the Number o	of Sequences field,	specifically:		·
A "Hard Page Bre	ak" code was inse	erted by the applica	ant. All occurrer	nces had to be deleted.	
Deleted <i>ending</i> stone due to a Patentin b			and adjusted the	"(A)Length:" field acco	rdingly (error
Other: Jeg	5-covert	ed spelling	of Arts	frail"	

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

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PCTIU

RAW SEQUENCE LISTING DATE: 01/17/2002 PATENT APPLICATION: US/10/018,706 TIME: 08:17:50

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01172002\J018706.raw

```
4 <110> APPLICANT: Thonnard, Joelle
      6 <120> TITLE OF INVENTION: Cloning of BASB110 Antigen From
              Moraxella (Branhamella) Catarrhalis
     10 <130> FILE REFERENCE: BM45394
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/018,706
C--> 12 <141> CURRENT FILING DATE: 2001-12-13
     12 <150> PRIOR APPLICATION NUMBER: 9915031.0
     13 <151> PRIOR FILING DATE: 1999-06-25
     15 <150> PRIOR APPLICATION NUMBER: PCT/EP00/05854
     16 <151> PRIOR FILING DATE: 2000-06-23
     18 <160> NUMBER OF SEQ ID NOS: 6
     20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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     24 <212> TYPE: DNA
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     29 atttttggtg tgatcaccac ttgcattttg gcaggatgtg ccagtaagcc aacctataat
                                                                               120
     30 agtacctcag gttcgggcag tcatcgtact tcaggttcag gtggtttggc aataggttca
                                                                               180
     31 caggitatea eggacagica gggegtacea aategetate aggitgaagea gggegataet
                                                                               240
     32 gtcaqtaaqa ttqctcaqcq ttatqqatta aattqqcqtq agattqqaca cattaataat
                                                                               300
     33 ctaaatagca gttatacgat ttatacaggt caatggctga ctttatggtc aggtgatctc
                                                                               360
     34 aaggtgcgtg agcgtagtat cagctctggt gtgaatacag ctcacacacc ttcgcctgtg
                                                                               420
     35 geggtteagt caageagace accagtacag cageateetg cegtacaaaa acceaegeea
                                                                               480
     36 cctgttgttg tggtaaaaaa acccacaccg actccgcctg tggttcagca gccagcacca
                                                                               540
     37 gttgccccac cagtgacaga agcaccattt gccacgggta gctcaggggt gatgcaattt
                                                                               600
     38 cyctatecty ttygtycyae caatecayty yttegaeyet ttygtaegye gaeagtygee
                                                                               660
     39 ggctcaactg ttaccagtaa tggcatgtgg ttttctggac gagatggcga tttaattaac
                                                                               720
     40 gccagtaatg caggcacagt cattcaagct gatcacaata tggacggggc gagtattgtg
                                                                               780
     41 attcagcata ccaatggatt tgtttcaagc tatatccata ttaaggacgc tcaagttaaa
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     42 acaggcgata cggtgcgtac cggtcagcgt attgcaagca tgaaaaatca gccaagcggt
                                                                               900
     43 gcggcactat ttgaatttag aatttctaga aatggcgtgt atgttgatcc attgacagta
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     44 cttaaatag
     46 <210> SEQ ID NO: 2
     47 <211> LENGTH: 322
     48 <212> TYPE: PRT
     49 <213> ORGANISM: Moraxella catarrhalis
     51 <400> SEQUENCE: 2
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     53 1
                                             10
     54 Arg Leu Gly Leu Ile Phe Gly Val Ile Thr Thr Cys Ile Leu Ala Gly
     56 Cys Ala Ser Lys Pro Thr Tyr Asn Ser Thr Ser Gly Ser Gly Ser His
                                    40
     58 Arg Thr Ser Gly Ser Gly Gly Leu Ala Ile Gly Ser Gln Val Ile Thr
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55

59

RAW SEQUENCE LISTING DATE: 01/17/2002 PATENT APPLICATION: US/10/018,706 TIME: 08:17:50

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01172002\J018706.raw

```
60 Asp Ser Gln Gly Val Pro Asn Arg Tyr Gln Val Lys Gln Gly Asp Thr
                       70
62 Val Ser Lys Ile Ala Gln Arg Tyr Gly Leu Asn Trp Arg Glu Ile Gly
                   85
                                       90
64 His Ile Asn Asn Leu Asn Ser Ser Tyr Thr Ile Tyr Thr Gly Gln Trp
               100
                                   105
66 Leu Thr Leu Trp Ser Gly Asp Leu Lys Val Arg Glu Arg Ser Ile Ser
           115
                               120
                                                    125
68 Ser Gly Val Asn Thr Ala His Thr Pro Ser Pro Val Ala Val Gln Ser
                           135
70 Ser Arg Pro Pro Val Gln Gln His Pro Ala Val Gln Lys Pro Thr Pro
                       150
72 Pro Val Val Val Lys Lys Pro Thr Pro Thr Pro Pro Val Val Gln
73
                   165
                                       170
74 Gln Pro Ala Pro Val Ala Pro Pro Val Thr Glu Ala Pro Phe Ala Thr
                                   185
76 Gly Ser Ser Gly Val Met Gln Phe Arg Tyr Pro Val Gly Ala Thr Asn
                                                    205
           195
                               200
78 Pro Val Val Arg Arg Phe Gly Thr Ala Thr Val Ala Gly Ser Thr Val
                           215
80 Thr Ser Asn Gly Met Trp Phe Ser Gly Arg Asp Gly Asp Leu Ile Asn
                       230
                                            235
82 Ala Ser Asn Ala Gly Thr Val Ile Gln Ala Asp His Asn Met Asp Gly
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                                       250
84 Ala Ser Ile Val Ile Gln His Thr Asn Gly Phe Val Ser Ser Tyr Ile
86 His Ile Lys Asp Ala Gln Val Lys Thr Gly Asp Thr Val Arg Thr Gly
87
           275
                               280
                                                    285
88 Gln Arg Ile Ala Ser Met Lys Asn Gln Pro Ser Gly Ala Ala Leu Phe
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                                                300
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92 Leu Lys
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97 <212> TYPE: DNA
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102 atttttggtg tgatcaccac ttgcattttg gcaggatgtg ccagtaagcc aacctataat
                                                                           120
103 agtacctcag gttcgggcag tcatcgtact tcaggttcag gtggtttggc aataggttca
                                                                           180
104 caggttatca cggacagtca gggcgtacca aatcgctatc aggtgaagca gggcgatact
                                                                           240
105 gtcagtaaga ttgctcagcg ttatggatta aattggcgtg agattggaca cattaataat
                                                                           300
106 ctaaatagcg gttatacgat ttatacaggt caatggctga ctttatggtc aggtgatctc
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107 aaggtgegtg agegtagtat cagetetggt gtgaataeag eteacaeace ttegeetgtg
                                                                           420
108 gcggttcagt caagcagacc accagtacag cagcatcctg ccgtacaaaa acccacgcca
                                                                           480
109 cctgttgttg tggtaaaaaa acccacaccg actccgcctg tggttcagca gccagcacca
                                                                           540
110 gttgccccac cagtgacaga agcaccattt gccacgggta gctcaggggt gatgcaattt
                                                                           600
111 cgctatcctg ttggtgcgac caatccagtg gttcgacgct ttggtacggc gacagtggcc
                                                                           660
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RAW SEQUENCE LISTING DATE: 01/17/2002 PATENT APPLICATION: US/10/018,706 TIME: 08:17:50

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01172002\J018706.raw

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																ttgtg	780
114	atto	agca	ata d	caat	ggat	t to	gtttc	caago	tat	atco	cata	ttaa	aggad	ege t	caag	jttaaa	840
115	acag	gcga	ata d	ggtg	gcgta	ac c	gtca	igcgt	att	gcaa	agca	tgaa	aaaat	ca q	gccaa	igcggt	900
																cagta	960
117	ctta	ıaa															966
119	<210)> SI	EQ II	ON C	4												
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121	<212	?> T	PE:	PRT													
122	<213	3> OI	RGANI	SM:	Mora	axel	la ca	ıtarı	chali	s							
	<400																
	Met	Thr	Val	Thr		Ala	Ile	Asn	Ser		Asn	Gln	Lys	Pro		Lys	
126	1				5	_	_	_		10					15		
	Arg	Leu	Gly		Ile	Phe	Gly	Val		Thr	Thr	Cys	Ile		Ala	Gly	
128		_	_	20	_		_	_	25	_,	_		_	30	_	'	
	Cys	Ala		Lys	Pro	Thr	Tyr		Ser	Thr	ser	Gly		GLY	ser	HIS	
130	_	1	35			a 1.	a 1 .	40		-1-	01	a	45	*** 1	7 7.	mh	
	Arg		ser	GTÄ	ser	GTÄ	_	Leu	Ата	тте	GTÄ	Ser	GIN	vaı	ше	Thr	
132	•	50	a 1	a 1	77- 7	D	55	3		~ 1-	17.0 1	60	01 =	~1	7 ~~	mh m	
	_	ser	GIII	GIY	vai	70	ASII	Arg	тут	GIII	75	Lys	GIII	СТА	ASP	80	
134		Cor	Tira	T10	λla		λνα	Пттт	C1++	Tou		Trp	λrα	Glu	т1 д		
136	vai	Set	пуз	116	85	GIII	AIG	ı yı	GLY	90	HSII	115	nry	GIU	95	Gry	
	uic	Tlo	Δen	Δen		Δcn	Ser	Glv	ጥኒኒዮ		Tle	Tyr	Thr	Glv		Tro	
138	1113	110	Hon	100	#C4	11011	001	011	105			-1-		110			
	Leu	Thr	Leu		Ser	Glv	Asp	Leu		Val	Arg	Glu	Arg		Ile	Ser	
140			115			1		120					125	,			
141	Ser	Gly	Val	Asn	Thr	Ala	His	Thr	Pro	Ser	Pro	Val	Ala	Val	Gln	Ser	
142		130					135					140					
143	Ser	Arg	Pro	Pro	Val	${\tt Gln}$	Gln	His	Pro	Ala	Val	Gln	Lys	Pro	Thr	Pro	
144	145					150					155					160	
145	Pro	Val	Val	Val	Val	Lys	Lys	Pro	Thr	Pro	Thr	Pro	Pro	Val		Gln	
146					165					170					175		
	Gln	Pro	Ala		Val	Ala	Pro	Pro		Thr	Glu	Ala	Pro		Ala	Thr	
148				180					185				_	190			
	Gly	Ser		Gly	Val	Met	Gln		Arg	Tyr	Pro	Val		Ala	Thr	Asn	
150	_	-	195	_	_			200		_,			205	_	_,		
	Pro		Val	Arg	Arg	Phe		Thr	Ala	Thr	Val	Ala	GLY	Ser	Thr	Val	
152	ml	210	•	01	37-±		215	G	a 1	3	3	220	3	¥	- 1-	3	
		ser	ASn	GTA	мет	230	Pne	ser	GTĀ	Arg	235	Gly	ASP	Leu	me	240	
	225	Com	7.00	71-	C1		37 o 7	T1.	C1 n	λ 1 ¬		ui a	7 an	Mo+	7 00		
156	Ата	ser	ASII	Ата	245	TILL	Val	116	GIII	250	ASP	His	ASII	Met	255	GTÄ	
	Δla	Sor	Tla	Val		Gln	Иie	Thr	Δen		Dha	Val	Ser	Ser		Tle	
158	пта	DCI	116	260	116	OIII	штэ	1111	265	GLY	riic	Val	JCI	270	- y -	110	
	His	IJe	Lvs		Ala	Gln	Va 1	Lvs		G] v	Asp	Thr	٧al		Thr	Glv	
160			275					280		1			285	9		1	
	Gln	Arg		Ala	Ser	Met	Lvs		Gln	Pro	Ser	Gly		Ala	Leu	Phe	
162		290					295					300					

42

RAW SEQUENCE LISTING

188 aggcagaggc tcgagtttaa gtactgtcaa tggatcaaca ta

DATE: 01/17/2002

PATENT APPLICATION: US/10/018,706

TIME: 08:17:50

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01172002\J018706.raw

		ne Arg	Ile	Ser	_	Asn	Gly	Val	Tyr		Asp	Pro	Leu	Thr				
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165	Leu Ly	ys																
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169	<211>	LENGT	H: 35	5														
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171	<213>	ORGAN	ISM:	Art	ific	ial	Sequ	ence										
173	<220>	FEATU	RE:															
174	<223> OTHER INFORMATION: Primer																	
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VERIFICATION SUMMARY

DATE: 01/17/2002

PATENT APPLICATION: US/10/018,706

TIME: 08:17:51

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\01172002\J018706.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date